Rat Notch-2 Alexa Fluor® 350-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1190U
100 µg

DESCRIPTION

Species Reactivity	Rat
Specificity	Detects rat Notch-2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 5% cross-reactivity with recombinant rat Notch-1 is observed, and less than 1% cross-reactivity with recombinant mouse Notch-3 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant rat Notch-2 Leu26-Glu492 Accession # Q9QW30
Conjugate	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

CyTOF-ready	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Blockade of Receptor-ligand Interaction	Optimal dilution of this antibody should be experimentally determined.
Flow Cytometry	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Rat Notch-2 is a 300 kDa, type I transmembrane glycoprotein involved in a number of early-event developmental processes (1). In both vertebrates and invertebrates, Notch signaling is important for specifying cell fates and for defining boundaries between different cell types. The molecule is synthesized as a 2472 amino acid (aa) precursor that contains a putative 27 aa signal sequence, a 1650 aa extracellular region, a 23 aa transmembrane (TM) segment and a 772 aa cytoplasmic domain (2). The large Notch extracellular domain has 36 EGF-like repeats followed by three notch/Lin-12 repeats (LNR). Of the 36 EGF-like repeats, the 11th and 12thEGF-like repeats have been shown to be both necessary and sufficient for binding the ligands Serrate and Delta, in Drosophila (3). Cell surface Notch receptor is thought to be a heterodimer consisting of the ligand binding extracellular region associated with the remaining transmembrane protein, as a result of post-translational proteolytic cleavage by a furin-like enzyme. Upon ligand binding, additional proteolysis events result in the release of the Notch intracellular domain (NICD). NICD translocates into the nucleus and initiates transcription of Notch-responsive genes (4). Thus Notch acts as both a ligand-binding receptor and a nuclear factor that regulates transcription. In addition, an alternative Notch signaling pathway that is mediated by the full-length, uncleaved form of Notch-1 at the cell surface has been reported to suppress differentiation of myoblasts in response to ligand binding (5). Rat Notch-2 shows 92% and 95% aa identity to human and mouse Notch-2 extracellular domains, respectively. Relative to the extracellular region of rat Notch-1, rat Notch-2 exhibits 56% aa identity.

PRODUCT SPECIFIC NOTICES

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Bio-Techne®
Global | bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL: 1.612.379.2956
USA | TEL: 800.343.7475 Canada | TEL: 855.668.8722 Europe | Middle East | Africa TEL: +44.0.1235.529449
China | info.cn@bio-techne.com TEL: 400.821.3475